

LISA: Opening New Horizons

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The Laser Interferometer Space Antenna (LISA) is a space-borne observatory that will open the low frequency ($\sim 0.1 - 100$ mHz) gravitational wave window on the universe. LISA will observe a rich variety of gravitational wave sources, including mergers of massive black holes, captures of stellar black holes by massive black holes in the centers of galaxies, and compact Galactic binaries. These sources are generally long-lived, providing unprecedented opportunities for multi-messenger astronomy in the transient sky. This talk will present an overview of these scientific arenas, highlighting how LISA will enable stunning discoveries in origins, understanding the cosmic order, and the frontiers of knowledge,